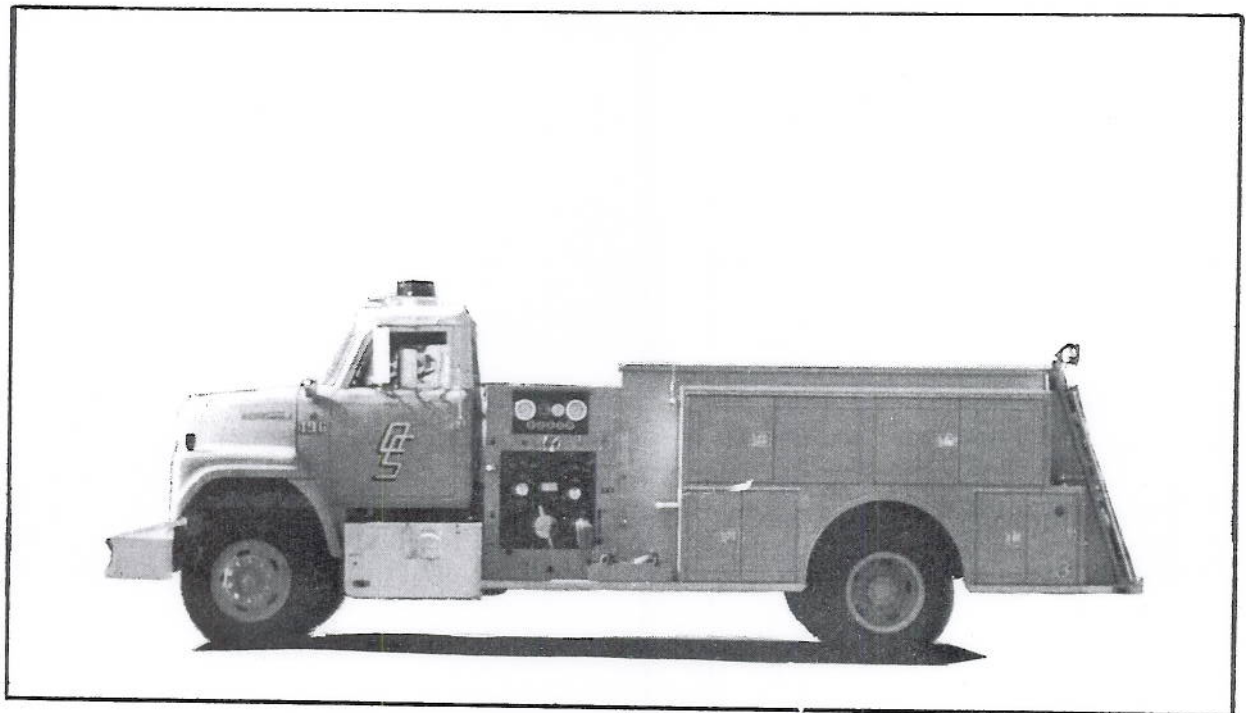


STATE OF CALIFORNIA  
OFFICE OF EMERGENCY SERVICES  
FIRE AND RESCUE DIVISION



**OPERATORS' MANUAL**

**FIRE APPARATUS**

**model 2050A**

**series no. 166 thru 199**

STATISTICAL INFORMATION

ENGINE AND CHASSIS

MAKE: INTERNATIONAL MODEL: 2050-A FLEETSTAR

YEAR: OES 166-175 1973  
OES 176-196 1975  
OES 197-199 1976

ENGINE: CATERPILLAR MODEL 1160/225 HP (OES 166-175)  
MODEL 3208/210 HP (OES 176-199)

CRANKCASE CAPACITY: 12 Quarts and Filter

ENGINE OIL: S.A.E. #30 - Use oils meeting the following engine service classification:

SC and SD (MS - Motor Severe Oils)  
CB (Supplement One Oils)  
CC (MIL-L-2104B Specification Oil)  
CD or (MIL-L-2104C)

FUEL TYPE: DIESEL #2-D (Minimum Cetane Rating of 40)

FUEL CAPACITY: (OES 166-185) 100 Gallons (Twin 50-gallon Tanks)  
(OES 186-199) 98 Gallons (33-gallon left; 65-gallon right)

AIR CLEANER: Two Stage Dry Type (Refer to engine manual for service instructions.)

COOLING SYSTEM CAPACITY: Approximately 53 Quarts

STEERING: INTEGRAL TYPE HYDRAULIC POWER ASSIST (5 Pints S.A.E. #10)

TRANSMISSION: ALLISON AUTOMATIC MODEL: MT 650

Refer to Allison Automatic Transmission Driver's Handbook for driving tips and service manual for maintenance instructions.

DIFFERENTIAL: S.A.E. #90 GEAR OIL

RATIO: (OES 166-175) 4.78  
(OES 176-199) 5.37  
(OES-196) 6.14 Experimental

TIRES: 1000 X 20, 12 PLY PRESSURE: 80 PSI

NOTE: Refer to maintenance manuals for any service required.

STATISTICAL INFORMATION (Continued)

FIRE BODY AND PUMPS

BODY BUILDUP: VAN PELT

MIDSHIP PUMP: HALE MODEL: QSD 100-3

RATING: 1000 GPM - SINGLE STAGE

BOOSTER PUMP: HALE MODEL: CBP-5 (PTO Drive)

RATING: 250 GPM - 150 PSI AT 1300 ENGINE RPM

NOTE: Damage will occur if booster pump is operated in excess of 1,300 engine RPM!

WATER TANK CAPACITY: 800 Gallons

Refer to Hale Centrifugal Pump Manual for maintenance instructions.

# FIRE APPARATUS INVENTORY

## OES ENGINES 166 THROUGH 199

- |                                     |   |
|-------------------------------------|---|
| 1 Deluge w/Barrel & Tips            | 1 Adapter, 5" x 4" DF                     |
| 1 Log Book                          | 1 Adapter, 5" x 2-1/2" DF                 |
| 1 Credit Card                       | 1 Wye, Gated 2-1/2" NSF x 2-1-1/2" NSM    |
| 1 Fire Extinguisher 4# or 5#        | 1 Hose, Booster 150'                      |
| 1 First Aid Kit                     | 3 Nozzle, 1-1/2" Combination              |
| 1 Hose, Soft Suction 2-1/2" x 12'   | 2 Nozzle, 1" Combination                  |
| 5 Cap, 2-1/2" Discharge w/Chain     | 2 Belt, Tailboard Safety                  |
| 1 Adapter, 1-1/2" IPF to 1-1/2" NSM | 1 Jack, Hydraulic w/Handle                |
| 1 Adapter, 1-1/2" PCF to 1-1/2" NSM | 1 Wrench, Lug w/Handle                    |
| 1 Adapter, 1-1/2" NSF to 1-1/2" IPM | 1 Crank, Hose Reel Hand                   |
| 2 Coupling, 2-1/2" DM               | 1 Cable, Tow w/Shackle & Pin              |
| 2 Coupling, 2-1/2" DF               | 24 Hose, 2-1/2" NST 50' Length            |
| 1 Reducer, 2-1/2" NSF to 1-1/2" NSM | 8 Hose, 1-1/2" NST 50' Length             |
| 1 Reducer, 1-1/2" NSF to 1" IPM     | 8 Hose, 1" IPT 50' Length                 |
| 1 Increaser, 1" IPF to 1-1/2" NSM   | 1 Cover, Hose Bed                         |
| 1 Siamese, 2-1/2"                   | 1 Clamp, Hose                             |
| 1 Wrench, Adjustable Hydrant        | 1 Pole, Pike                              |
| 4 Wrench, Hose Spanner              | 1 Ladder, 14' Roof (Aluminum)             |
| 1 Wrench, Suction Hose Spanner      | 1 Ladder, 24' Extension (Aluminum)        |
| 4 Strap, Hose and Ladder            | 1 Block, Chock                            |
| 1 Lantern, Hand                     | 1 Kit, Radef                              |
| 1 Radio, Mobile                     | 1 Hose, Soft Suction 4" x 12'             |
| 1 Book, Radio Maintenance Log       | 1 Axe Pick Head w/Mount Brackets & Guard. |
| 1 Mallet, Rubber                    | 1 Manual, Chassis & Engine Service        |
| 1 Cutter, Bolt                      | 1 Manual, Engine (Diesel Only) Serv.      |
| 1 Shovel                            | 1 Manual, Trans. Service (Auto. Only)     |
| 1 Bar, Crow                         | 1 Manual, Pump (Hale)                     |
| 1 Hammer, Sledge 8#                 | 1 Catalog, Parts (Cab & Chassis Only)     |
| 2 Rope, 100'                        |   |
| 1 Kit, Reflector (3) Unit           |   |
| 2 Nozzle, 2-1/2" Shutoff w/Tips     |   |
| 1 Nozzle, 2-1/2" Fog                |   |
| 2 Hose, Hard Suction 5" x 10'       |   |
| 1 Strainer, 5" Suction Hose         |   |
| 1 Adapter, 5" x 4-1/2" DF           |   |